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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/896,058	06/29/2001	Shigekazu Orita	188-87	9455

7590

06/18/2004

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EXAMINER

TORRES VELAZQUEZ, NORCA LIZ

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 06/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/896,058

Applicant(s)

ORITA ET AL.

Examiner

Norca L. Torres-Velazquez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The Examiner has carefully considered Applicant's amendment and accompanying remarks filed March 3, 2004 and March 29, 2004. In view of the Applicant's amendments, the Examiner withdraws the previously set forth rejections. Further, the 35 U.S.C. 102(a) of claim 1 over MOTOGAMI et al. (JP 2000273762A) has been withdrawn. Applicants have submitted an English translation of this application.

2. During a conversation with George Kaplan on June 8th, 2004 the Examiner had indicated that the claims would be in condition for allowance and approval to amend claim 7 was requested. The indicated allowability of claims 1-16 is withdrawn in view of the newly discovered reference(s) to EBNETH (US 4,201,825). Rejections based on the newly cited reference(s) follow.

3. Applicant's arguments and the Declaration under 37 C.F.R. 1.132, see amendment, filed March 03, 2004, with respect to the prior art of OIKE et al. have been fully considered and are persuasive. The 35 USC 103 rejections of claims 1-12 have been withdrawn. In paragraph 4 of his Declaration, Mr. Orita, indicates that electroless plating, as described on page 15 and in Examples 1-3 of the present application, is liquid phase plating. When the three-dimensionally knitted fabric is subjected to electroless plating, all of the yarns constituting the fabric are uniformly metallized and the space between adjacent yarns remain unchanged, with air permeability of the fabric being maintained.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4 and 7-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over ROELL (US 5,589,245) in view of EBNETH (US 4,201,825).

ROELL discloses a textile spacer material that consists of two covering layers 1 and 2, preferably of knitted fabric, which are connected by the pile thread structure 3. (Column 1, lines 48-50) It is noted that the structure taught by ROELL reads on the claimed three dimensionally knitted base material composed of an upper ground structure, a lower ground structure and connection thread interconnecting the two layers. With regards to the heat-fusing thread, it is noted that the ROELL reference teaches that the mechanical and physiological properties of the textile spacer material can be varied depending in the selection of the thread material or other classic process parameter of production. The reference gives as example the use of a temperature sensitive material. (Refer to Column 4, lines 20-38) ROELL further teaches that the textile spacer material can be coated and/or the pile threads can be surface-modified. (Column 4, lines 56-60) ROELL teaches the use of the textile spacer material as a filter material, and indicates that special properties can also be formed by appropriately pre-treating the thread material for the pile thread structure and/or post-treating the textile spacer material. (Column 4, lines 61-65) The reference also teaches that the entire textile spacer material can be impregnated and that a sheathing of the threads can result depending on the type and quantity of the impregnation. (Column 5, lines 4-8)

With regards to claims 8 and 9, it is the Examiner position that the ROELL reference teachings in which the materials used for the pile thread structure are dependent on the intended

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use of the structure, are broad and would encompass the use of heat-fusing threads with melting points in the range of 100 to 190 °C.

While ROELL teaches post-treating the textile spacer material and that the entire textile spacer material, it fails to specifically teach subjecting the material to an electroless plating with at least one conductive metal.

EBNETH teaches a metallized textile material by currentless metal deposition. (Abstract) The reference teaches coating textile structures such as knitted and woven fabrics. (Column 2, lines 15-20) The reference further teaches using the textile material metallised for the production of antistatically filter cloths and further teaches that it is also possible to use a combination of copper plated and nickel plated wall coverings for electromagnetically screening off rooms from monitoring equipment. Electrical equipment can also be readily screened off from foreign waves and interfering frequencies. (Column 3, lines 36-47) With regard to claims 10-16, it is the Examiner's position that the structures disclosed by ROELL In Figures 1-9 read on the structures presently claimed.

Since both references are directed to knitted fabrics and their application in filters, the purpose disclosed by EBNETH would have been recognized in the pertinent art of ROELL.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the three dimensional textile spacer fabric of ROELL and provide with a currentless metal deposition of the entire structure with the motivation of producing an electromagnetically screen as disclosed by EBNETH above.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over ROELL and EBNETH as applied to claim 1 above, and further in view of ENG et al. (US 5,532,052).

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The ROELL and EBNETH references do not explicitly disclose the use of a Raschel structure.


ENG et al. disclose a camouflage material having radar screening properties comprised of a warp-knitted fabric, so-called Raschel fabric.

Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the electromagnetic wave shield and provide it with a Raschel structure with the motivation of producing a light-weight knitted fabric as disclosed by ENG et al. (Refer to Column 1, lines 16-18 and lines 32-33).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Norca L. Torres-Velazquez whose telephone number is 571-272-1484. The examiner can normally be reached on Monday-Thursday 8:00-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Norca L. Torres-Velazquez
Examiner
Art Unit 1771

June 10, 2004


ELIZABETH M. COLE
PRIMARY EXAMINER